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## LEADING ARTICLES

### EGYPT AND THE EGYPTIANS.

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BROOKLYN, N. Y.

#### THIRD LETTER.

*Egypt and Her Plagues — Ophthalmia, Diarrhea and Mosquitoes — Curios of Cairo — Memphis, the Birth-place of Medicine — Egyptian Antiquities and History — Early Evidences of Law and Science — The Honor of Discovery Due an English Physician — Dr. Young.*

To the average medical man the name of Egypt calls up the plagues called upon that unfortunate country by Moses, when Pharaoh refused to let Israel go. To the invalid, sent there by his family doctor who has heard that it is a good place for rest and recuperation, the hope of rehabilitated health buoys up his heart and makes him cheerfully submit in that country to conditions that he would expect to kill him at home. To the physician who has been there and given some attention to its climate and character, it appears to be a rather inhospitable spot for sufferers with any form of ailment. Hotel life, in any country, is hard upon the invalid, but hotel life in Egypt is particularly so.

Night is made hideous by noise, mosquitoes murder sleep, flies drive to distraction during the day. The Egyptian fly can only be commended for his persistence, a quality he has perhaps gained by long residence here, as the progeny of those sent by Moses to plague Egypt. One of them is a match for any dozen American flies, in its determined effort at getting into the eyes and torturing the scalp of the bald-headed. Their dexterity at avoiding the victim's efforts at driving them away is phenomenal. Their numbers around butcher shops, bakeries, sweetmeat stores, and places where food is kept, or cooked, can fully account for the Arab's immunity against typhoid fever. The way they cling around the eyes of the natives, and the way these natives tolerate this nuisance, are equally astonishing to the medical tourist. It is a common thing to see a baby with half a dozen of them feeding upon the exudate from its eyes and so accustomed have these babies become to this form of annoyance that they rarely make the slightest effort toward brushing them off. Even the mothers stand by watching the pests, yet rarely try to relieve the little ones. It is all to them but "kismet"—fate, to which they must religiously submit. Can any one wonder, then, that there are more cases of ophthalmia in Egypt than in any other country? Why should it be at all strange that along the Nile there are more blind people than elsewhere on our globe, in an equal population? While these babies, along with myriads of their elders, are perishing constantly from the effects of food that has become infected from the feet of flies, their immunity through natural selection is very great, as compared with that of the children of European residents. It is common knowledge that the latter die so frequently that it is almost impossible to rear one in that country. And why should it be otherwise, with diarrheal diseases so common, flies so numerous, and all sorts of food so fully exposed to germ inoculation? There, as here, the autumn is the fly season, and then death's harvest is a most bounteous one. It is particularly so toward the end of the autumn when these flies have had a fair opportunity to get in their work of sowing and the food has had time sufficient to multiply toxins, and germs, to the poisoning point. The great bulk of the people of Egypt being Mohammedans there is necessarily more faith in amulets, charms, and offerings at the graves of saints,

than in medical care or skill. Upper Egypt is much more wholesome than lower Egypt, and this is probably due to the fact that the climate is dryer, flies get less chance to develop in moist food, mosquitoes are less numerous, and less left-over food is consumed. Rain storms are relatively much more frequent in Lower than in Upper Egypt. Around Thebes and Luxor they have an average of about one rain storm every four years. Be the people, therefore, ever so careless with food neither flies nor germs get a fair chance to develop in such a climate. Only during the Nile floods is there moist food in sufficient abundance for them to multiply upon. Then even Upper Egypt is attacked by dysentery and typhoid fever, as well as malaria. It is a remarkable fact that the Arabs suffer much less from the two former than do Europeans. Ages of exposure to large doses of the germs has given them a considerable degree of immunity, but even they are not perfectly immune.

Tuberculosis is less common in Egypt than in most other countries. One has only to consider the nature of the bacillus of tuberculosis in order to see a reason for this. The great heat, long drought, and excessively strong sunlight of the region are all antagonistic to such germs. These forces destroy them as fast as they develop, and they can, therefore, get no foothold. All the hotels of Egypt supply mosquito netting, on the beds of their guests, to protect them from inoculation with the hemomoeba malaria. Unfortunately such protection is a mere delusion. Servants cannot be depended upon to look after these nets and keep them in order. Small holes soon appear in them, and then they become mosquito traps into which gather great numbers of the pests. In not a single hotel in which we stopped, from Port Said and Alexandria to Assuan, did we find a single sound mosquito-net on any bed supplied. They were all worse than no net at all. Every night, before retiring, it was necessary to find these holes, pin or sew them up, and then begin the extermination of the flying squatters who had pre-empted the bed in advance of us.

Hydrophobia is an exceedingly rare disease in Egypt, notwithstanding the fact that, like Turkey, it is a great place for homeless dogs. It must have at one time been quite common as the Coptic prayer books contain a prayer for those suffering from this affliction. That no such prayer would have appeared there had the people not been quite subject to this disease, goes without saying. The extermination of all dogs that became affected has evidently through natural selection, rid the country of this danger.

Plague and cholera are occasionally brought here, and it is suspected that they come by way of Mecca during the pilgrim season. During the first week in January, when I passed through Ismailia, on my way to Cairo, quite a number of cases of plague were reported as being found in Ismailia. No attempt at quarantine of travellers was resorted to. People came and went, into and out of the train, at this station, without let or hindrance. British health officers seek to isolate the patients and not the general public in such emergencies. It costs very much less, is more efficient, and it does not produce a feeling of panic that is destructive to common sense and justice. Ismailia is in the land of Goshen of the Bible, and is the place where the Israelites resided when Moses asked Pharaoh to let them go to their promised land. The presence of plague here was a reminder of Moses' means of constraining Pharaoh, on that memorable occasion, but whether any of the forms of plague then introduced were in any way like the present epidemic no one knows. The oldest known record of any general epidemic of disease resembling plague was found in Egypt and occurred in a region into which I was going when I passed through Ismailia, i. e., Memphis.

Tourists who visit Egypt all take the greatest interest in Cairo, its queer streets, its strangely costumed people, its citadel, its tombs of the Mamalukes, its Hamzowee bazaars, its mosques, its whirling dervishes, its camels and dromedaries; its men who drop down in the streets to pray at the call of the Muezzin; its veiled women whose noses are covered with a gilded word-symbol pronounced zet, meaning the sacred pillar of Osiris, the ancient god of Egypt, and the annual parade of the sacred carpet before it is borne off to Mecca. Few of them think of, or care about the history of the stones that have been used in the construction of these streets, bazaars, mosques, tombs or citadel. Almost every stone of any value in the construction of this city was once a part of a far greater, far more populous, and far more magnificent city than Cairo is ever likely to be. Its tombs are still the wonder of the world, and although millenniums have flown past since they were built and hewn, they show no decay and sad neglect as do the tombs of the Mamalukes. The mosques and city walls are but beggarly representatives of the original walls from which their stones were taken. The golden symbol with which their women hide or embellish the upper part of their faces, is a persisting vestige from that far older city, and, strange to say, in defiance of Moham-

medan bigotry and Mohammedan iconoclasm; woman's conservatism has preserved it through all these tens of centuries. That old city and this old symbol were of exceeding great interest to me, as a medical man, and are likely to prove of greater interest to the medical men of the future than to those of today, because more is likely to be discovered concerning them that will have an important bearing on the history of the evolution of medical science.

#### BIRTH-PLACE OF MEDICAL SCIENCE.

The city to which reference is here made is Memphis. Chief among my reasons for wanting to see Egypt was that I might see Memphis, the birth-place of medical practice and of medical science. I had, some weeks before, gone far from the beaten path of ordinary touring in order to make a pilgrimage to Epidaurus, in Greece, where I could see the largest temple ever erected to any physician in this world, and where I could sleep at the foot of Mount Tithion where Esculapius, the god of healing, was said, by the Greeks, to have been born. After looking at the immense ruins of that still more immense ancient hospital, that stood in a lonely, wild spot, at the foot of that mountain, my desire to see Memphis, in the light of the newer knowledge of the source from which Greece borrowed its medical lore, became intense. If to the little "Hieron of Epidaurus," far away from any city, crowds could be drawn to get healed, and such crowds, how wonderful must have appeared to be the success of these priest-physicians. I took the trouble to estimate the seating capacity of what remains of the amphitheatre where hygiene was taught, and, without the slightest crowding, there was room for over 30,000 human beings. Think of even 20,000 patients at a time going to such a place to be healed, and think that from here sprang, by direct lineal descent, modern, orthodox medical practice, and then the reader will not wonder that I enthused over the prospect of being able to trace the source of this illumination still farther back into the depths of antiquity. In Epidaurus I gazed upon the treatment practiced nearly three thousand years ago. In Egypt I had come to see the spot where some touring investigators had, at that remote period, looked back still another three thousand years, gathered the knowledge then still extant, and planted it in progressive Greece, where it grew to the dimensions referred to.

Egyptologists are sadly hampered in getting exact dates because of the fact that the ancient Egyptians had nothing equivalent to an Era by which to compute time. We

have our Christian Era. The Mohammedans have their Hegira. The Greeks had their Olympiads. The Egyptians merely gave the names of their kings and the time they lived and reigned. Each king's time of reigning has to be added to the times of all the rest, in order to get the number of years back to any particular or important event. As overlappings and cessations occur they complicate the figuring and, because of this, different authorities differing in their results since some of them fail to observe overlappings or gaps. As regards the history of Memphis there is surprisingly accurate record back to the First Dynasty. Then the first real character who appears on the scene is Menes. His tomb was discovered by De Morgan, at Nakadeh, in 1897. He is said to have made Memphis the capital of Egypt and this, by some, is believed to be its founding. Mariette, the French Egyptologist, has figured out the date of this event as occurring B. C. 5004. Prof. Lepsius, by making allowances for possible overlappings in a number of the reigning sovereigns, reduces it to B. C. 3892, thus shortening the time about 1100 years, and thus allowing for every possible source of error in the computations. At the shortest, the time back to the founding of Memphis is, therefore, about 5800 years. From this time down to the second Persian conquest, in 340 B. C., there is an almost unbroken record of thirty dynasties, each of which was represented by many successive kings. During its entire early history there was worshipped at Memphis, as a trinity, Ptah, Pakt, and Imhotep. Ptah, the father, was the chief god and was identified with Osiris, the prototype of Zeus among the Egyptians. Imhotep, the son, is of interest to medical men, inasmuch as the Greeks identified him with their own Esculapius. As this trinity came down, in mythology, from a period far before Menes, and far before any history, the remoteness of the antiquity of Imhotep must be exceedingly great. The civilization represented by Memphis, and by its possible predecessor, Abydos, could not have grown in a day. The splendor, wealth, national cohesiveness, and religious tenacity of those times must have taken ages to develop. Their having no written language kept us from knowing anything about the steps of its growth. It certainly must have extended back for millenniums before Menes, or else the evolution occurred at an unparalleled rate and in a miraculous manner. However, this mythological god reaches us as the *first bearer* of the message of health to the ailing, that we have any record of. Leaving him aside and only considering real historical characters,

we find that Menes' immediate successor on the throne, Athosis, was not only a physician, but also a medical author, having written a work upon anatomy. Quotations from what is believed to be one of his books, are found in a medical papyrus in the Museum of Berlin, of the time of Rameses II. It declares that the quotation was taken from a papyrus of the First Dynasty. In Athosis, then, we discover the first human being who is recorded as having taught anatomy and practiced medicine. This was over 5700 years ago, and the stones that were used in the building of the city in which he lived, reigned, and taught, are now found in the walls of the buildings of Cairo. If those stones could only speak and tell us of the many strange things they have seen men do with in that long period that has elapsed since they were first taken from their quarry, what an interesting story it would be.

In order to reach Memphis, from Cairo, I went to the pyramids of Ghizeh, accompanied by an Arabian dragoman, and there we took camels and rode across the edge of the Libyan Desert. Passing the pyramids of Sakkara we finally reached the Apis Mausoleum, or Serapium, where we stopped to rest and look at these strange remains of the superstitions of this ancient people. The ride was about twelve miles. The pyramid of Cheops and the Sphinx were among the first things passed on the way, when leaving Ghizeh. All of the twelve miles over which we went was really the ancient grave-yards of Memphis. The pyramids are all tombs. The Necropolis of Sakkara is filled with multitudes of sepulchres of many kinds. It alone is from four and one-third miles long to about one mile wide. The Apis Tombs are hewn in solid rock, as subterranean chambers and passages. Their aggregate length is nearly 1300 feet, 10 feet wide and 17.5 feet high. The keeper supplies tourists with candles and accompanies them through the chambers. The temperature, however cold or scorching hot it may be outside, never exceeds 79 deg. F. within. They were discovered by Marietta, November 12, 1851, after being closed for a period which he estimated to have been at least 3700 years. He says: "The finger-marks of the Egyptian who inserted the last stone in the wall built to conceal the doorway were still recognizable on the lime. There were also the marks of naked feet imprinted on the sand which lay in one corner of the tomb chamber." Each side chamber is about 26 feet high and contains an immense coffin, 13 feet long, 7 feet wide, and 11 feet high. Most of the coffins are made of beautifully polished red, or sometimes black granite, that was evi-

dently brought from Assuan, over 250 miles up the Nile. They are all hollowed out, like ordinary coffins, and each weighs about 65 tons. There were sixty-four of them, and the date in which the sacred bull was placed in each was marked thereon, so that they became a means of confirming other dates found elsewhere in Egypt. On reaching the site of ancient Memphis little can be seen to tell of its past, or to give the slightest conception of its former greatness. Fields, farms, and a couple of Arab villages, occupy the place. Two large statues of Rameses the Second lie prostrate and broken as well as partly buried in mud. They give one a slight idea of where the great temple of Ptah stood, and around which the city spread.

From here came to all the world Egyptian religious ideas, Egyptian science, the Egyptian art of healing, and to this spot we must trace the germs of every step in modern civilization. As the amoeba has given us the data on which to build a scientific physiology so a correct knowledge of Memphis, at its glory, would give us the means of reconstructing the knowledge of how we gained our own greatness. All the suggestiveness that has led to progress arose here. The modern world, proud of its triumphs, seldom stops to think of the fact that every new idea and every new discovery comes, as a growth, from pre-existing ideas and pre-existing discoveries. All things—from ideas of babies, rattles, or from philosophies to Krupp guns—are linked together by the eternal law of continuity. Let us look back for a moment and see some of the elements of our own civilization and our own thought that now gleam among the rubbish of antiquity. Look at these embalmed dead and the embalmed sacred bulls and learn that they tell of an Egyptian belief in the resurrection of the dead. Look at the sarcophagi of some of the kings and see where their winged spirits are shown as coming to rest upon their preserved bodies, and learn of their belief in a spirit world. Look at their symbol of life, which nearly every god carries and that was worn as a golden jewel by the people of ancient Egypt, and what is it but a handled cross? Indeed it is sometimes made in the image of a man with outstretched arms and the head representing the top of their cross. It was the most sacred symbol of ancient Egypt before Abraham was born or Joseph had been sold by his brethren into that country. Look at their national and city trinities and learn that they believed that there should be three persons in every godhead. Interpret these things as we please, but they are there. The evolutionist can say that the Everlasting Power

that created man put them into the minds of these people. The creationist can but believe that they are vestiges of the early beliefs of Adam, or Noah, handed down, in mutilated form, as silent prophecies of a future. Visit, as I did, Karnack, Luxor, the tombs of the Kings of Thebes, and Phylae, and then doubt, who can, the progress in science and in art made by this ancient people. The architectural glory of the cathedral of Cordova overwhelmed me with astonishment at its effective beauty, but all the grandeur of Cordova's fane shrivelled into insignificance at the sight of the great Hypostyle Hall, of the Temple of Ammon, at Karnak. There is nothing comparable to it in this whole earth. The library ceiling, in the same temple, tells something of the astronomical knowledge of those times. The carved, cut, and turned granite, of all sorts of sizes and shapes shows that they knew how to use edged tools and accurate turning lathes. They had diamond rock drills for hollowing out their granite sarcophagi, and the means of polishing the hardest kinds of stone. Their drawings, articles of jewelry, sculptures, and a multitude of things, that can be seen any day in the museum at Cairo, are the most convincing evidence of technical skill and knowledge of a very high order. Their knowledge of arithmetic, geometry, engineering and mechanics show that they must have had schools and colleges of a high degree of merit. They divided the year into 365 days, and had additional days, similar to our additions during leap years. They had the zodiac with its twelve signs, the year with its twelve months, and the circle with its 360 degrees. They made glass ages before the Phoenecians who were long credited as its discoverers. There are drawings in their tombs depicting glass blowing and glass manufacture much like that of today. They vitrified pottery in color and the potter's lathe, depicted in their drawings, is almost exactly the same as that used today. They had blow pipes, delicate balances enclosed in glass cases to protect them, chemical forceps and quite an extensive knowledge of chemistry, as well as metallurgy. They manufactured gold leaf, and I saw some gilding at Sakkara that looked as fresh and pretty as if it had been put on but yesterday, yet that gilding could not have been less than 4500 years old. In the Bibliotheque National, Paris, is a papyrus found by M. Prisse d'Avennes, in an Egyptian tomb of the 11th dynasty. It consists of eighteen pages, unequalled for size and beauty of characters, written with black ink—bold, round and cursive. It has been called the oldest book in the world, and its

characters are declared, by competent authorities, to be the prototypes of the letters handed by the Phoenecians to the Greeks, by the Greeks to the Latins, and by the Latins to us. Our alphabet, then, was born in Egypt as a modification, through slow degrees, of the Egyptian hieroglyphics. While most of the other people of our globe subsisted chiefly on rice the Egyptians have always preferred wheat and, from ancient Egypt, we have not only got our seed stock of wheat, but our habit of making wheat bread the staff of life. Before Troy was destroyed Sesostris, king of Egypt, cut a canal between the Red Sea and the Mediterranean, cut through the Eastern branch of the Nile. The canal entered the river where Haroun stood. De Lessep's Suez Canal is, therefore, but an imitation of this far older piece of engineering. During the reign of Darius large ships passed through this ancient canal that afterwards, through neglect, was filled up with drifting sand. In medicine they are known to have used opium, senna, and a number of mineral remedies now resorted to. That they knew of the antiseptic power of certain substances is at tested by the way they embalmed the dead. Myrrh, cassia, aromatic gums, bitumen and a combination of carbonate, sulphate, and chloride of sodium, that was known to the Greeks as Natron, constituted the materials chiefly used. The most expensive but best means employed, was by using aromatic gums, while the least expensive was by using natron. Perhaps the most wonderful, among the many wonderful things that has come to us from Egypt, is the knowledge of the shape and size of our earth. Biased by the ignorance of the Dark Ages in Europe, we have been led to look upon the knowledge of the earth's shape and size as a modern discovery. Most of us have tacitly credited Columbus with the discovery. What are the facts? Eratosthenes, librarian at Alexandria, 250 years before the birth of Christ, measured the sun's shadow on June 21st, at Alexandria, and discovered that it cast no shadow at Assuan on the same date. Using still more ancient Egyptian geometry on his problem he discovered that as the distance between the two places was 500 stadia, and the shadow thrown at Alexandria represented 11 degrees of the circumference of a globe, he calculated that the earth's circumference was equal to 25,000 of our miles. His method of making this measurement is the method still pursued by astronomers in getting at the same results. In jurisprudence the ancient Egyptians, in some ways, excelled us. They permitted women to earn property and own it in their own right.

They allowed women, in the absence of male progeny, to become reigning queens. They gave to women the right to teach, to preach, or make a living in any honorable manner. A judge who condemned an innocent man, or one who allowed a clearly guilty one to escape unpunished, was held as a criminal before the law. Interest on a debt was never allowed to exceed the principal. There was no imprisonment for debt. Not to pay a debt was to be excluded from burial in the family plot, and the consequent disgrace that followed such exclusion. Any one, even a convict, could bring charge against a dead person and, if the charge was sustained, decent burial was forbidden until his friends righted the wrong. This applied to kings as well as to the common people. Deserters were punished with disgrace and not with death. Women were protected from molestation by the most severe penalties. Doctors who proclaimed the discovery of some wonderful cure were held responsible for the effects produced by that cure and, if death resulted from its use, the doctor, or quack, had to follow his victim to the "nether world." In the prayers and confessions, which many of them committed to papyrus, they display the high ethical tone of those remote times. Here is the translation of one that is over 4000 years old: "I have not boasted, not lied, not stolen, not defiled myself, not burned with rage, not blasphemed, not been an eavesdropper, not oppressed the poor, not starved any man, not made any to weep, nor have I falsified the beam of the balance." The papyrus of Ani, in the British Museum (No. 10,470) gives forty-two sins that every devout person had to confess concerning before Osiris, or lose his soul. Besides those of the confession quoted were others equally remarkable, such as: "O Breath of Flame, I have spoken no evil; O Lord of Law, I have never entered into a conspiracy; O god of two-fold evil, I have never committed adultery; O reciter of words, I have never spoken in hot anger; O Babe, who comest forth from Uab, I have never made my ear deaf to the sound of words of truth; O thou that orderest words, I have never been an excitable and contentious person; O Lord of aspects, I have never been precipitate in judgment; O thou who verifiest mankind, I have never blasphemed God." Every one of the forty-two confessions, of these prayers, was believed to be verified by forty-two guardian angels (gods) at the judgment seat. The heart, too, was weighed, by the angels that stood round the throne of Osiris, so as to further confirm the truth of the confession. In the Tombs of the Kings, at Thebes, the walls are

decorated with drawings of this judgment, showing even to kings, that the justice of Osiris follows them into their graves.

#### HONOR BELONGS TO AN ENGLISH PHYSICIAN.

How came we to possess all this knowledge of ancient Egypt? Who was the genius that unravelled the mysteries of the hieroglyphics and gave us entrance into this, the most remote antiquity to which man has ever penetrated? The readers of the *MEDICAL FORTNIGHTLY* must, on learning that it was a medical man, feel the more proud of their profession. But for this fact I would not have inflicted upon them so much information about that remarkable country, as it seems so foreign to medical matters and, therefore, apparently out of place in a medical journal. In 1799, a French soldier stationed at the town of Rosetta, in Lower Egypt, discovered a slab of basalt that was covered with several kinds of strange characters. A little later and it was captured by the English, during an engagement with the French. The English soldiers sent it to London where it was placed in the British Museum. There it was studied by Dr. Thomas Young, professor of natural philosophy at the Royal Institution, and physician to St. George's Hospital. He was then one of the best posted linguists in London and, as the Rosetta stone told its story in three languages—Egyptian hieroglyphic, demotic, and Greek, he was able, at once, to decipher the Greek, then the demotic and, finally, by hard study, the Egyptian. Many other persons have since acquired the knowledge of how to read the hieroglyphics, so that the evidence of the correctness of such readings is perfect. Where Greek and Egyptian history overlap the most thorough accordance expected has been found to exist. Much of what has been discovered corroborates a large amount of Bible history. No competent person has now the slightest doubt of the practical accuracy of Egyptian history, as revealed by the hieroglyphic records, and the whole world owes a debt of gratitude to Dr. Young for this wonderful piece of work. He was born at Milverton, Somersetshire, England, June 13th, 1773; graduated M. D. in July, 1796; died May 10th, 1829. His parents were both Quakers.

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**TINNITUS AURIUM** may be caused by many conditions. Impacted cerumen, obstruction of the Eustachian tube, cerebral anemia, alcoholism, Bright's disease, nicotine, poisoning, arterio-sclerosis, and, above all, neurasthenia, are the most frequent factors which must be considered in diagnosis.

## NOTES ON THE HANDLING AND CONVEYANCE OF THE SICK AND INJURED IN ST. LOUIS.\*

GEORGE HOMAN, M. D.

ST. LOUIS.

WHEN this topic suggested itself as a subject for a contribution to the St. Louis Medical History Club it was not my intention then, nor is it now, to exhaustively discuss the carrying and handling of the sick and injured in civil life, but to mention some of the pertinent facts and features as observed by me during the periods when I was officially connected with the city government of St. Louis.

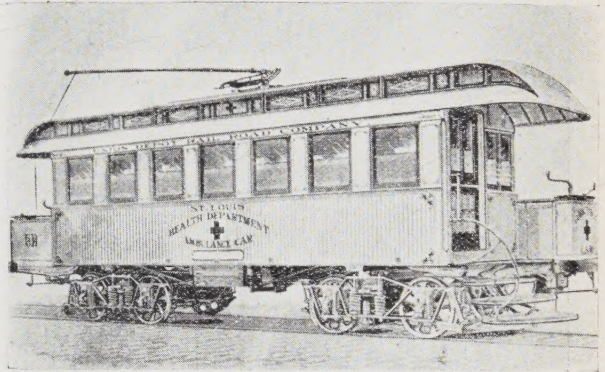
My first relationship of this kind was as assistant physician in the city hospital, and at that time the crudeness of means and rudeness of manner attending the conveyance of patients first came under notice.

The vehicles then in service were roughly constructed, and, as complementary to them, main strength and awkwardness seemed to be the chief qualifications required of the of the drivers and attendants, and this impression was further strengthened at a later date when I was placed in charge of the city dispensary, then as now the chief collecting and distributing point for the sick and injured who come under municipal care.

Not only were the methods of carriage and handling seriously lacking in what such a service rightfully demands in a civilized community, but precious time in saving life was often lost through having no surgeons to accompany the ambulances, and further needless sacrifice was made in emergency cases by the requirement insisted on that all patients should be brought first to the dispensary, after which they could be forwarded to the hospital.

No substantial reform in this direction could be effected before I was transferred to another division in the health department, but the lesson of the wrongs and hardships needlessly inflicted on patients as then learned by observation and experience was not forgotten, and when I became health commissioner, in May, 1893, it was a part of my purpose to see if something could not be done for betterment in this respect. Preparatory to so doing the record of ambulance calls for a year previous was studied, and the location of each call marked on a large city map by means of a pin stuck into it. In this way the localities most demanding such service were indicated at a glance, and preparation was made to establish ambulance sta-

tions at such points, which was in time duly accomplished. Concurrently with this new ambulances of a better style and more closely suited to the work were provided, and it was arranged that physicians should be constantly on service with the vehicles at these detached stations. This plan worked well for emergency service, but the transportation of patients to the hospitals was still by the old wagon method, and was attended with inconvenience and suffering especially in wet or wintry weather. To meet this situation "the conclusion was reached that a properly equipped ambulance car propelled by electricity, plying over convenient routes, with adequate terminal facilities in the center of the city and at each institution, would in all respects most fully meet the demand for safe, quick and comfortable means of transportation for sick and wounded people."



St. Louis Ambulance Car

Accordingly, with the approval of the Board of Health, a trolley car was borrowed from the Union Depot Railroad Company and placed in service, the trackage of the said line at that time, however, ending on Arsenal street at King's Highway, and requiring wagon service from the terminus to the three institutions on that street.

In discussing the subject of an ambulance car service for the health department with John Scullin, Esq., president of the Union Depot Railroad Company, he generously offered to build a specially appointed car for this purpose, and gave me a *carte blanche* order on the St. Louis Car Company to that effect.

With the help of an experienced car builder plans were made and a car constructed for health department uses, of which I submit pictures for your inspection, showing the its exterior and the interior arrangements. The total length of the car is 33 feet including the platforms, the inside meas-

\*Read before the St. Louis Medical History Club, April 25, 1907.

urements being 24 feet long by 7 feet 2 inches wide. By express direction of Mr. Scullin no expense was spared, and the workmanship, materials, and finishings throughout were first-class in all respects. It was completed and put in service with due ceremony on December 27, 1894, being so far as known the pioneer vehicle of its kind in the world. A detailed description of the car, and other particulars, will be found in my report as Health Commissioner in the eighteenth annual report of the Health Department.

In regard to its working the acting chief dispensary physician, Dr. G. A. Jordan, in his report for the year ending March 31, 1895, says:

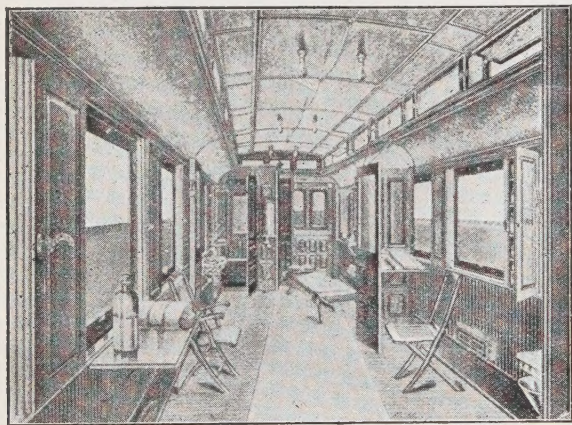
"It has been the good fortune of St. Louis to introduce to the world a new departure in

long been totally callous to the inhumanities and barbarities visited on the variolous sick in hauling them that distance often over wretched roads, in rude vehicles, and in weather temperatures sometimes below the zero mark.

In an effort to remedy this situation I waited on the general manager of the road mentioned in company with Dr. W. B. Outten, then as now in charge of its medical department, and sought to make arrangements for the use of a car which could be comfortably fitted up for the shelter and transportation of patients, the management of the road to haul the car back and forth at such hours as the track was most free from traffic, but no deal of the kind could be made, the manager declaring that the road would be known at once as the smallpox line if such an arrangement was effected.

Returning now to the ambulance car and the special features to fit it fully for service in respect of facilities, comfort, speed, etc., it may be conceded that while inventive genius probably could add much to it in these several respects, still that some such form of vehicular construction must be employed for ambulance service on a large scale until the time shall come when the conquest of the air has been achieved by man, and air-borne vehicles moving with safety and speed without jolt or jar shall be brought into use for this purpose.

In closing these remarks I may perhaps be allowed to say that my last sight of the unique vehicle described herein was had on the day next following the great tornado of May 27, 1896. While passing in the rear of the car barns at Jefferson and Geyer avenues, which locality lay about in the center of the tornado's track, I chanced to see through fallen walls and twisted roof something that had a familiar look, and clambering over heaps of wreckage I recognized at once the ambulance car standing apparently entirely unharmed amidst wide ruin and devastation, and seemingly in complete readiness for the beneficent purpose of humane relief for which it was especially designed, and to which it was dedicated a while before.



Interior of the St. Louis Ambulance Car

this line—an electric ambulance car. The uniform success experienced has attracted flattering comments from the daily press and illustrated periodicals throughout the country. This car has everything that can contribute to the comfort of patients, including beds and lavatory conveniences. It is heated by electricity, has a full complement of medicines and surgical appliances, and is in charge of an experienced surgeon, assisted by an attendant. Leaving this office, and running on schedule time, it touches at the City Hospital, Female Hospital, Insane Asylum and Poor-house, thus reaching all of the city's eleemosynary institutions, conveying patients to and from the same."

The only city institution for the care of the sick not reached by means of this car was the smallpox hospital situated about fourteen miles down the river at Quarantine Station on the Iron Mountain Railroad, and the authorities and people of St. Louis had

A LIVERPOOL physician of large experience, Dr. William Alexander, after years of careful study, has determined that 20 grains each of bromide of sodium and bichloride of sodium given three times a day after meals offers the best results in epilepsy. The remedy should be well diluted. He uses barley water as a vehicle.

## PHYTOLACCA DECANDRA.

PROFESSOR FINLEY ELLINGWOOD, M. D.

CHICAGO, ILL.

Editor "Ellingwood's Therapeutist."

It would be difficult to find a physician of the eclectic school who has not the strongest confidence in the medicinal action of phytolacca based upon prompt and satisfactory results.

The medicine is prepared from the root, leaves and berries of the ordinary poke, indigenous to North America. The dose of a strong fluid extract is from five to twenty minims. Of the specific phytolacca, from one to ten minims. There is a solid extract produced which is serviceable as an external application in glandular enlargements.

Before this remedy was known to the profession, many farmers would crush the fresh root of the plant and apply it to the hardened udders of cows where the bag was caked. This suggested its influence in mastitis, and it certainly has produced as satisfactory results in that disease as could be expected of any single remedy. But its field is a wider one. It includes all glandular structures. The glandular organs are immediately influenced. The lymphatic, the gastric, the intestinal and the sweat glands also.

It has always been classed as an alterative, but I question whether its influence should be narrowed to this term as generally understood. But without doubt it influences the structure of the blood through its influence upon both the structure and functions of the lymphatic and other glands.

It is specifically a remedy for glandular disease. Enlargements, whether acute or chronic, local or general, of the lymphatic glands are directly influenced by it. Its action is prompt and satisfactory. It does not derange the stomach, but rather improves it and promotes digestion and normal assimilation.

In the treatment of acute mastitis, whether immediately after confinement, or of a sub-acute character during pregnancy, or mastitis from any cause, such as that which occurs to unmarried women from direct injury to the breast, or from a metastasis of parotitis, in all cases it acts equally well.

I have been in the habit of giving five drops of the specific medicine every two hours for this inflammation, after applying a tight bandage around the breast. At the same time aconite should be given for the fever. As an immediate eliminative, I give one or two doses of from ten to fifteen grains of potassium acetate.

This treatment is equally good in acute orchitis or ovaritis and I have seldom found it necessary to vary the course to any very great degree. The application of libradol and antiphlogistine hot, might immediately control the pain, but I would have confidence in the curative effects of this remedy alone, although it would probably take less time if heat were applied.

In the treatment of sore throat, whether benign or malignant, there are but few cases that will not be immediately benefited by this remedy in small doses. Administered to children, twenty drops in a four ounce mixture given in dram doses every hour is perhaps a proper dosage.

In the treatment of adenitis, some of our writers express the most perfect confidence in the action of this remedy. I have obtained excellent results and have nothing to say against it. I am in favor of applying an ointment of the extract externally with heat, while the remedy, in moderate doses, is administered internally.

In chronic liver trouble, while not always to be depended upon alone, the remedy is a valuable auxiliary to the action of iris, chionanthus or leptandra. The condition is that in which the patient cannot lie upon the right side, and where there is soreness and pain in the right hypochondrium. These conditions present during the pregnant term, will be benefited by this remedy.

The agent has been used in the treatment of goitre with much benefit, and if it be administered in sufficiently large doses, and its action persisted in, it will prove highly beneficial. I have depended on it for many years in the treatment of various forms of eruptive skin disease giving it in incipient eczema, and in many forms of chronic eczema, especially that form where the eruption is dry in character, and where there are cracks and fissures in the skin.

I advise in syphilis a combination of this remedy, berberis and echinacea, replacing the berberis occasionally with podophyllum until a free liver action is obtained, and going back after a short time to the original combination.

To those who have not used the remedy, I would say, begin its use in the first case of inflamed glands you have, giving aconite or veratrum for the fever and this remedy for a direct influence upon the glands, and omit other remedies until you have been enabled to thoroughly watch the results obtained from this. You cannot be other than pleased with its action if you obtain a good, reliable preparation.

100 State street.

## PENTOSURIA\*

VICTOR VESTLING, A. B., M. D.

CRESTON, IOWA.

ALL urines which gave a distinct and unquestionable reduction test, were, until a few years ago, said to contain sugar. We permitted ourselves to conclude that this sugar was grape sugar. This conclusion is no longer reliable. We know that a variety of sugars are found in human urine. All of these sugars react to the recognized sugar tests — Trommer's, Nylander's, Fehling's Haines', phenylhydrazin. During the puerperal period, if there is an abundant secretion of milk, and particularly if the woman does not nurse her child, we find milk sugar in the urine. It may persist in the urine for months post-partum, as long as the secretion of milk continues. The differential diagnosis between grape sugar and milk sugar is accomplished by the fermentation test, as milk does not ferment with yeast.

Robinson and a few others have recently described cases of levulosuria. This is characterized by independence of the ingestion of carbohydrates, and the condition may be recognized by the decided levorotary power developed during the fermentation test of the urine.

Maltosuria, or the occurrence of maltose, is occasionally found in the urine in diseases of the pancreas. This is, however, of less importance. Of considerably more importance are the combined glycuronic acids and the pentose.

Realizing that the affection is very likely not as rare as many believe, and that undoubtedly many cases of pentosuria are diagnosed as diabetes, and that a knowledge of this disturbance and of the means to its diagnosis may often be quite necessary, I thought that a short paper on the subject would not be out of place.

The literature on this subject is as yet very meager. Fairly recent articles by Blumenthal, Salkowski, Bial and others, the acknowledgement of which is made in this general way, form the basis of this paper.

Pentosuria is a term applied to the occurrence of sugars of the five-carbon series (pentoses) in the urine. The pentoses ( $C_5H_{10}O_5$ ) include the carbohydrates, arabinose, xylose and rhamose.

The appearance of sugars of this type in the urine were first detected by Salkowski and Jastrowitz in the urine of a morphin habitue. Since then similar observations have been made on various individuals. In

some of these instances the pentosuria has been found to persist unchanged for many months, and even for several years. The pentose occurs either as the only carbohydrate present in noticeable amount, or it may accompany dextrose, the sugar of ordinary glycosuria. The urine in a case of pentosuria gives a distinct, but a little delayed reaction with Trommer's test, and usually, as E. Salkowski first observed, the reduction only takes place upon cooling, but then quite suddenly. Pentose reduces Fehling's solution, but the copper oxide appears only after the mixture has been boiled for a few seconds, when there is a sudden general clouding of the fluid. The reaction thus differs from that produced by glucose and other sugars, where streaks of the oxide rise from the heated portion of the tube before the fluid begins to boil.

Nylander's test usually gives a grayish or brownish deposit and not as strong a black as is furnished by the other sugars.

Thus it may very easily happen that a person applying for life insurance is sometimes rejected on the ground that he is no doubt a diabetic. It was on account of a case of this kind that we know what we do about pentosuria. A man thirty years of age applied for life insurance but was rejected. He consulted his physician for probable diabetes. The physician became suspicious because the urine was optically inactive in the polariscope and did not ferment with yeast. When the urine was examined more accurately by Salkowski it was found that the sugar it contained was pentose. Here was a case where the examination of a urine having reducing properties, but optically inactive and non-fermentative, led to the discovery of pentose.

A urine that contains pentose and only such a urine gives the orcin test. This test is performed in the following manner: 3 cc. of urine are decomposed with about 6 c.c. of fuming hydrochloric acid. Add a few granules of orcin and heat the mixture to the boiling point. As soon as the mixture begins to boil a bluish-green color appears which is positive proof of pentose. Urines containing grape sugar or milk sugar do not give this reaction. Urine containing glycuronic acid gives the test only upon prolonged boiling, and then the precipitate is never greenish-blue, but more of a violet color.

Before the orcin test was introduced into chemistry the phloroglucin test was used, but it is much less positive. The phloroglucin test is performed as follows: 3 c.c. of urine are decomposed with 3 c.c. of hydrochloric acid of a sp. gr. of 1019. Then add a few

\*Read before the thirteenth annual meeting of the Southwestern Iowa Medical Society at Creston, February 21, 1907.

granules of phloroglucin and bring the mixture to the boiling point. Even after slight heating a cherry red color develops, which gradually becomes distinct, and finally (a point that is characteristic) turns greenish black.

If amyl alcohol is then added and the mixture shaken the coloring matter is dissolved and shows an absorption band between D and E, that is between yellow and green. Urines containing large amounts of glycuronic acid show a brownish black color, but present the same absorption lines. Urine containing only traces of glycuronic acid shows neither absorption lines nor the characteristic colors indicative of pentose. The orcin test is a great deal more reliable than the phloroglucin test as most of the glycuronic acids do not yield any reaction with orcin.

In using the orcin test one or two drops of liquor ferri sesquichlorate may be added, according to Bial. This produces a beautiful blue color. Or Bial's reagent may be used. This reagent is made up thus: concentrated hydrochloric acid 250 c.c.; orcin 0.5 grams; liquor ferri sesquichlorate 10 drops. Confusion is only possible with two of the glycuronic acids known at present, if the urine is examined within 24 hours after it is voided. These are the menthol-glycuronic acid and the turpentine-glycuronic acid. Both have the property of decomposing spontaneously, and as free glycuronic acid also reacts to the orcin test they may be confounded. Still this mistake should be prevented in most cases by getting a careful history, as menthol-glycuronic acid and turpentine-glycuronic acid are only excreted after the ingestion of menthol and turpentine. The odor is also suggestive, menthol urine having the odor of peppermint and turpentine urine that of violets. Consequently there can be scarcely any difficulty in the recognition of pentose. The tests are easily and quickly performed, no elaborate apparatus being necessary, and the expense, as far as the reagents are concerned, is a minimum.

If we have a urine giving positive reaction with Trommer's test the phenylhydrazin test, the orcin and the phloroglucin test, if it is optically inactive and does not ferment, then the patient excreting such urine has pentosuria.

Now what does this condition indicate? Blumenthal says that as it is certain that the patient is excreting sugar, i.e., pentose, there is unquestionably a disturbance in sugar metabolism. We are then confronted with this question: Are we dealing with a variety of diabetes mellitus, a pentose diabetes, or

something else? If we are dealing with a variety of diabetes mellitus, the combustion of carbohydrates must be diminished, as in the case of diabetes. Such a connection must be thought of, as Ruff has produced pentose from derivatives of grape sugar by oxidation with potassium permanganate and hydrogen peroxide, and it is possible that the human organism may also carry out this process of oxidation. Further, it is known that the pentose which occurs in nature and enters the body with the food, undergoes only partial combustion even in the healthy. It is not therefore unnatural to explain pentosuria by conceiving that the patient from the forms of sugar with six atoms of carbon forms pentose. This he incompletely oxidizes, and hence excretes a portion of it. If this view were correct with the withdrawal of starch from the food pentosuria should disappear, or at least lessen; and on the other hand, on the profuse administration of starch or grape sugar the pentosuria should increase. But if we withdraw carbohydrates from patients, who excrete pentose, the pentosuria still continues and apparently in the same degree as formerly. The administration of even 100 grams of grape sugar after a diet free from sugar does not lead to a decided increase of the pentosuria. Thus, pentose is not formed by the oxidation of hexose, i. e., the varieties of sugars with six atoms of carbon or their derivatives.

Diabetes is characterized by the fact that the power to burn starches is diminished. This is not true of pentosuria. In Bial's case of pentosuria the administration of 100 grams of grape sugar caused no glycosuria. In this case the combustion of galactose was also normal. From this it would seem to follow that a patient having pentosuria has no greater tendency to alimentary glycosuria than the healthy.

There seems to be good ground to suppose that pentosuria is a pentose diabetes, in which the metabolism for sugar with six atoms of carbon is normal, while the property of combustion for pentose (sugar with five atoms of carbon) is diminished or has entirely ceased.

With our food in the form of grain and fruit, and in beer and tea we ingest a certain amount of pentosans. It is quite possible that pentosans are changed into pentose in the stomach by the action of hydrochloric acid. The organism is incapable of oxidizing them, and they are therefore excreted. This hypothesis is accepted by Naunyn and L  thje and others.

Does the organism contain pentose groups? Blumenthal maintains that all animal nucleins contain a pentose group,

and that the pentose group is characteristic of nucleins just as is the group of xanthin bases, for he found no proteids which contain pentose except nucleins. He also holds that when an albumin body gives the phloroglucin test for pentose we are justified in declaring it to contain nuclein.

A. Kossel and Neumann found no pentose groups in nucleinic acid of the thymus gland. A more recent investigation by Neumann disproves this.

Bang, Jacob, Bergell, Friedenthal, Umber, Grund and others have proved the correctness of the theory first suggested by Blumenthal that not only all vegetables, but also all animal nucleo-proteids contain carbohydrates belonging to the pentose group. The fact that the groups were so long overlooked in the nucleins by prominent investigators is no doubt due to the fact that the pentose group in some of the nucleo-proteids is very loosely combined.

Researches of Blumenthal and Bial have made it appear unlikely that pentoses are formed in the pentosuric patient by an imperfect nuclein decomposition since the metabolism of the pentosuric patient shows no such increased destruction of nuclein.

Carl Neuberg claims that inactive arabinose originates from derivatives of galactose. It is uncertain how far this view is correct.

Before the discovery of pentosuria by E. Salkowski we had but slight understanding of the sugar metabolism of the human organism. In pentosuria we are dealing with an anomaly of sugar metabolism which must be assumed to be an independent one.

Pentosuria has nothing in common with diabetes, and is not to be regarded as pentose diabetes for the property of combustion of the pentoses of the food is not altered. Therefore, according to Blumenthal, pentosuria is an independent disturbance of metabolism which is characterized by the fact that in this condition an inactive sugar has been found in nature of the first time. Thereby the law that the animal organism and plants can produce only active varieties of sugar has been proven erroneous. Another law, which for a long time was considered uncontested, namely, that the pentose are the sugars of the vegetable kingdom only, and do not occur at all in the animal kingdom, has also been disproven.

True chronic pentosuria must be kept separate from alimentary pentosuria. Many individuals have not the property of oxidizing large amounts of pentosan introduced with the food, but excrete a portion of these pentosans as pentose. This is alimentary pentosuria. The amount of pentose excreted varies from 0.2 to 0.5 per cent. This pen-

tose always arises from the pentosans taken up with the food for the most part in the dextro-rotary arabinose contained in fruits.

As a rule this phenomena is observed during the summer when such articles of diet as cherries, strawberries and plums are eaten freely. This alimentary pentosuria has nothing in common with chronic pentosuria, in which arabinose also occurs.

In chronic pentosuria the inactive arabinose appears in the urine and not the dextro-rotary. True chronic pentosuria is characterized by the fact, that, independently of food, inactive arabinose is excreted continuously. The amount varies from 0.3 to 1 per cent. Still, chronic pentosuria and the alimentary type may co-exist. Then, again, some cases of chronic diabetes are complicated by pentosuria. In these cases the pentose has no importance so far as is known at the present time.

In another group we have cases of pentosuria in which besides pentose, glucose appears in the urine. The glycosuria may have an accidental cause (as morphine, for instance) as in the case which led Jastrowitz and Salkowski to the discovery of pentosuria.

In mild cases of diabetes we may encounter a combination with true pentosuria. In Blumenthal's case the grape sugar amounted to from 0.6 to 1 per cent and the pentose from 0.3 to 0.5 per cent.

Then we have the pure cases of pentosuria in which no other sugar than pentose is found.

The following cases have been reported:

1. (Jastrowitz and E. Salkowski.) In this case the glycosuria disappeared after the ingestion of morphine was stopped, but the pentosuria proved chronic.

2. Salkowski and Blumenthal.) Merchant, 36 years of age; always healthy. Married; four living children. Amount of pentose excreted varied between 0.7 and 1 per cent. The average amount of urine was a liter to a liter and a half per day. This case occurred in 1859 in the practice of Dr. L. Feilchenfeld who still has the patient under observation. Up to this time the pentosuria has never been associated with any serious symptoms. The patient repeatedly suffered from hydrocele and the fluid obtained by puncture contained grape sugar, but no pentose. Patient decidedly thin.

3. (Jastrowitz and E. Salkowski.) Banker, 65 years of age. Patient said to have repeatedly had reducing substances in his urine, but grape sugar was never found till 1895 when pentosuria was discovered. This case is especially interesting, as in the family of the patient numerous chronic diseases occur,

particularly diabetes and nervous diseases. Up to two years before death (1900) the urine constantly showed above 1 per cent of pentose. Death was due to arteriosclerosis. Autopsy showed calcification of the coronary arteries. The pathologist found nothing of special interest in the pancreas, but, unfortunately, he had not been informed of the existence of pentosuria.

4. (Bial.) Merchant, 37 years of age. Suffered from mild gastric and intestinal symptoms and supposed himself to be a diabetic. Small amounts of sugar had been frequently found in his urine and a suitable diet had been advised. Patient conspicuously thin. In July, 1898, it was determined that pentose was present in the urine, as well as constantly for twenty days in July, 1899, but no grape sugar could be found. The pentose amounted to 0.3 per cent.

5. (Bial.) Druggist, 28 years of age. Perfectly well. Amount of pentose 0.35 per cent.

(6.) (Fritz Meyer.) Merchant, 39 years of age. Never previously ill. Was rejected by a life insurance company before the discovery of pentosuria on account of diabetes. He was treated in Carlsbad on a strict diet and declared cured, as examination of urine by polariscope showed optical inactivity. Married a few years ago, and is now the father of a healthy child. His health has always been good except a mild attack of perityphilitis. In April, 1900, symptoms appeared which gave rise to a suspicion of a constitutional disease. Weight decreased decidedly. Headache, lumbar pains, lassitude, vertigo and severe neuralgia, particularly in region of sciatics. Urine amounted to 1800 c.c. It was clear and contained no formed elements, and was without albumin. It reacted positively to Trommer's and Moore's tests. Being optically inactive it was examined for pentose, and pentosuria was found.

7. American lady, who had been several times under treatment in Carlsbad on account of a supposed diabetes. Her case was always considered to be a severe one for, in spite of the strictest diet, it was never possible to render the urine aglycosuric. In this case quite a decided amount of pentose was found, over 1 per cent, but not the slightest trace of grape sugar.

8. (Brat.) Lady, 62 years of age. For several years she was under professional treatment on account of a presumably mild diabetes. Had a slight degree of fatty heart, otherwise quite well. In this case the urine was somewhat dextro-rotary, 0.2 per cent, and therefore not unlikely besides inactive pentose a dextro-rotary pentose was also present.

9. Brother of patient just described, 50 years of age. Apparently perfectly well. Urine showed a considerable amount of pentose. The other brothers and sisters present neither diabetes nor pentosuria.

Other cases have been described by Columbini in morphine habitues, by Caporelli in xanthoma, others by Reale and Romme, and a case of alimentary pentosuria with glycosuria by Barszewsky. It is of course not remarkable that many cases of pentosuria have been confounded with diabetes as the qualitative tests are the same. However, according to Blumenthal, it has nothing in common with diabetes. He says that pentosuria is a disturbance of metabolism which is connected perhaps with the cerebrin metabolism, perhaps with the formation of galactose.

Regarding the prognosis of pentosuria it is possible to say but little, as the disease has been known but a few years. The prognosis is probably much more favorable than in mild diabetes, as the pentosuric utilizes fully the starches and other carbohydrates, which are administered with the food, and the amount of pentose he forms and excretes is small—from 15 to 20 grams per day. Still it must not be forgotten that sugar, though small in amount, is circulating in the blood. Blumenthal and Bial, from their investigations, have proven the presence of arabinose in the blood. The question whether the pentosuric is more susceptible to infectious diseases than a healthy individual would possibly be answered in the negative. However, as you know, this is actually the case with diabetics.

As a general thing most observers agree that the prognosis of pentosuria is not very serious.

The treatment employed in diabetes is out of place in pentosuria. In general a pure meat diet, according to the experience of Blumenthal and Fritz Meyer, is not well borne by pentosurics, as neuralgic symptoms, if present, are increased. A milk diet is found to be particularly advantageous.

Pentosuria, though it may be assumed to be rare, from the as yet scant literature, is nevertheless not to be regarded as a curiosity. Nor should it be considered as a subject not worthy of our attention. It certainly cannot be considered immaterial that a person, as in most cases cited, should be supposed for years to be a diabetic and subjected to dietetic and mineral spring treatment, which is out of place entirely and absolutely in the treatment of pentosuria. In life insurance the decision is of fairly great importance.

Positive orcin test with negative fermentation test proves pure pentosuria. Positive

orcin and positive fermentation test denote pentosuria and glycosuria.

Turning to the right of the polariscope does not prove non-existence of pentosuria for dextro-rotary pentose also occurs in the urine.

=====

**THE WIDAL TEST WITHOUT A MICROSCOPE.**  
 —A Satisfactory Method of Making Bacteriologic Diagnosis by Means of the Typhoid Agglutometer.—This apparatus is designed to obviate the use of the microscope and the fresh, live culture of typhoid bacilli necessary for the Widal test when made in the old way. Laboratory and clinical experiments have shown it equal in delicacy to the former method. The limits of the reaction are more distinct than in the old process. The package contains: 1. One bottle of sterile, permanent suspension of typhoid bacilli. 2. Four test tubes. 3. One lancet and tube for collecting blood. 4. One vial for diluting serum. 5. One small pipette for distributing the diluted serum. 6. One large pipette with two graduations (each corresponding to ten drops of the size delivered by the small pipette) for filling the tubes with suspension. Reaction.—When the reaction is positive, floccules appear in one or more of the tubes, depending upon agglutinating power of the serum tested. These flakes are small at first, and disseminated through the fluid. They gradually increase in size and settle to the bottom of the tube. In a complete reaction supernatant fluid has cleared. In a positive but incomplete reaction floccules are seen in the still cloudy fluid. In a negative reaction the fluid in the tubes remains uniformly cloudy as in the control. A positive reaction is easily detected by comparison with the control.—Clin. Reporter.

**A DISCUSSION ON PERINEAL TEARS.**—John Egerton Cannaday, M.D., Surgeon-in-charge, Sheltering Arms Hospital, Hansford, W. Va. (Amer. Jour. Obs.), reviews the history of the subject and says, "The literature of the subject is enormous if not appalling. Innumerable operations have been proposed and practised, and almost every suture devised by man has been tried; all eloquent to the fact that none of the methods are perfect. A perusal of some of the writings on the subject would tend to confuse the mind of the reader with their intricacies, but when shorn of its complexities and reduced to the basic principles of surgery a perineal tear revolves itself into a comparatively simple matter." The anatomy of the parts concerned is taken up in detail. The author believing that a thorough understanding of this part of the subject makes the matter a comparatively simple

one to the operator. In speaking of the supports of the pelvic organs the author says, "A number of widely differing views as to what factors normally enter into the support of the pelvic contents are held by the principal authorities of the world. Some hold that the levator ani with or without the aid of the other muscles is the chief power for support. Others ascribe all virtue to the fascia. Some, again give both muscles and fascia more or less equal credit for accomplishing the work of support between them. Personally the author believes that the muscles with the fascia as a composite diaphragm in closing the lower end of the abdominal cavity and in giving support to the pelvic organs. Of the two factors he considers the fascia of major importance; in the anterior abdominal wall we consider the fascia of the utmost importance in the prevention of hernia. The pelvis should not be radically different." The indications for repair are given and the operations is minutely described. The author shows that the denudation outline is practically the same as that of the capital letter M, the outline of the sutures representing the letter Y. The various methods of different operators are described. The advantages of feeding the patient on minimum amounts of albumin and of locking the bowels for two weeks in the after treatment of complete tear cases are stated.

**THE TREATMENT OF STUTTERING.**—E. W. Scripture describes a psychological and phonetic method of curing stuttering. He treats of superenergetic phonation, in which there is an excess of nervous discharge to the vocal organs, and tonic and clonic cramps at various points. Control must be restored to each set of vocal organs. Breathing exercises first to control the diaphragm and thoracic muscles. Control of the larynx is then taught and of the tongue and lips in articulation. The patient is next taught the letters phonetically, and educated to produce any one of them at will. Finally reading becomes automatic. For conversation he must first learn to seize hold of the thought he wishes to express and not to lose it on account of his embarrassment. He describes objects slowly and finally reaches perfect conversation.—Medical Record.

**BURNS.**—The following is a very handy, and at the same time serviceable, application for burns: Mix twenty drops of carbolic acid with four ounces of castor oil and stir in the whites of two eggs. Mix thoroughly and apply on a soft cloth to the burn.—The Med. Sum.

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## OFFICIAL TRANSACTIONS.

### RETRO-PHARYNGEAL ABSCESS WITH REPORT OF CASES.

M. A. GOLDSTEIN, M. D.

ST. LOUIS.

THIS is an interesting condition because of its scarcity, because of the many confusing conditions which may arise in differential diagnosis, and finally because of the variable technique that is instituted for its relief. For the scarcity of the literature, we may account by the rarity of the condition.

It does not occur with sufficient frequency to give us definite and permanent data for reporting. As to its etiology, it has been claimed that it arises from the few lymphoid follicles deep in the pharynx which may have some connection with the ring of the pharynx. This has been corroborated by the report of those cases where there has been found an acute pyemic condition in the pharynx or tympanic cavity where there has been lymphoid infection, situated behind the deep muscles of the pharynx. Whether all cases of retro-pharyngeal abscess can be etiologically classified is an open question.

As to the difficulty of differential diagnosis, several cases which I wish to report may serve to illustrate this point. Out of ten cases that I have seen, the clinical history of two cases will deserve special consideration.

The first case is that of a child, male, six months old. The patient was treated for some time for unusual enlargement of the lymphatics of the neck. The treatment was instituted by the family physician, general tonics, use of iodides, iron tonics, local application of the iodine on the skin, etc. The patient continued to get worse. The worst feature was the inability of the child to nurse properly. A laryngologist who had been called into the case before I was called thought that he was dealing with a neoplasm of the posterior pharyngeal wall. This laryngologist anxious to confirm his diagnosis, took a pair of punch forceps, bit out a piece of the tissue and submitted it to a microscopist. Within twenty-four hours a report was returned that this was a case of angio-sarcoma,

with prognosis of great gravity. I was called in as a court of last resort. The patient was limp and cyanotic. I found a condition that is characteristic of post-pharyngeal abscess, namely, bulging of the pharyngeal wall forward. It extended laterally, especially on the side where the pus was accumulated. The patient was placed on the table, a bistoury guarded by the finger was advanced into the pharynx and an opening one inch long was made at the point where the bit of tissue had been punched out for microscopic study. A trocar was then inserted into this opening and a drop of pus was found. I was not satisfied with that. The pharyngeal muscles did not yield, so I made an incision on the opposite side. I liberated about two teaspoonsful of pus.

In this particular case, it is manifest that there was some confusion between the clinician and the pathologist. They ought to work hand in hand. I can understand how a pathological picture can be presented which might permit such a diagnosis, with intense infiltration of the entire musculature of the pharyngeal wall, with additional round cell infiltration, it would not seem difficult in a vertical section of the tissue arrive at such a conclusion. But for a pathologist to give out conclusions as to the malignancy and prognosis of the case based on his limited observations is more than the pathologist has a right to assume.

The next case was one that had been going on for two weeks where there had been a diagnosis of peri-tonsillar abscess and possible presence of malignant growth. The patient was a baby, there was difficulty of breathing when I saw the case, cyanosis, and I was unable to make a simple inspection of the pharynx. Depression of the tongue would be followed by choking. The infiltration of the tissue was so intense that even an examination would produce asphyxia. I watched the case for several days, and would not have reached the diagnosis if new conditions had not arisen. I was called in at 11 p.m., when there was considerable cyanosis and heart weakness. There was only one thing to do, and that was tracheotomy. After an

incision had opened the trachea I could not find a trachea tube small enough to put in the wound.

Last year I had the pleasure of a one week visit with Mr. Henry Button in England. He is an old Scotchman of the old school. He has not availed himself of the armamentarium of the new school, but has a stock of appliances of his own for handling all such emergencies. He has a flanged tube which is used by him in these emergency tracheotomies. I have one here which I copied from his tube. The difficulty of keeping the trachea clear through such a small tracheotomy tube is quite plain. Mr. Button uses sterilized feathers for this purpose. My assistant, Dr. Bryan, suggested the use of the ordinary tempered steel wire, making a little hook on the end and twisting a little piece of cotton around it for removing the secretions. A steam vaporizer with compound tincture of benzoin was used in the case, with moist towels hung in the room.

The case suggested the possibility of malignancy in the tonsils and retro-pharyngeal abscess. The same technique was used as in the first case, two or three ounces of pus being evacuated. After the pus was removed the condition of the parts was so abnormal as to question what the future of the case would be in regard to the function of the larynx. I was afraid that the condition of the parts and the position of the trachea tube would destroy the child's voice. I was also afraid of stenosis. I debated what means ought to be used to bring the trachea into its normal axis. The tube was allowed to remain in situ for twelve days. After its removal there was apparently some trouble about the axis of the trachea and larynx in their mutual relationship. We were getting ready to intubate when we were saved the trouble by the child breathing through its mouth. For two or three weeks there was no voice, but gradually the voice was restored to its normal condition. It is simply a matter of good fortune that the larynx did not suffer some permanent damage. The child then made an uneventful recovery.

#### DISCUSSION.

Dr. Sauer.—I was notified to see the first case reported by Dr. Goldstein, but was afterwards told that I need not call. I have only seen two cases of this condition, but I can recall three cases opened in Berlin by Prof. Hegner. He said that difficulty in nursing in babies should attract one's attention to retro-pharyngeal abscess.

Dr. Kirchner.—I would like to ask if there were temperature conditions in this case, and

whether this would not help in making the diagnosis of pus?

Dr. Deutsch.—I think if the soft tube would be replaced in this little apparatus by a hard tube, it would insure its being kept open.

Dr. Meisenbach.—Prof. Kuemmel said, that in the majority of these cases the diagnosis would not go astray if there was practised palpation of the posterior pharyngeal wall. There was caries of the vertebra as a complicating factor in the differential diagnosis which had not been touched upon. Another interesting thing is that 50 per cent of these cases occur in children under one year of age.

Dr. Goldstein, in closing.—The question of palpation is one that does not work as easily as it would appear to the theorists. The whole pharyngeal musculature pushed forward with pus below it will give very little information in palpating the parts. The fluctuation of pus in these cases cannot be determined by palpation.

Regarding Dr. Deutsch's suggestion, I believe that hard rubber in the trachea tube would be apt to cause pressure necrosis.

In both cases there was some fever. In the one case the highest temperature attained prior to the tracheotomy was 100.4. That much fever did not give much information. In the other cases there was a temperature ranging from 99 to 100. In the one case the streptococcus was found, in the other case the streptococcus and the staphylococcus.

The Schleich anesthesia was used in making the tracheotomy opening.

A question which I did not touch on in my remarks was caries of the vertebrae. In cases in adults caries of the vertebrae is a factor of etiological importance.

The general practitioner comes in contact with these cases more often than does the specialist and it is he who should be made aware of these confusing points in the differential diagnosis. Peritonsillar abscess has caused much confusion in making the diagnosis with the general practitioner. I wish to digress for one moment to offer a suggestion in making the incision in cases of peritonsillar abscess. I do not consider it sufficient to make an incision and draw pus, but this should be followed by the introduction of a small uterine dressing forceps, opening the blades directly in the wound. Very often the patient with peri-tonsillar abscess does not make a prompt recovery and it is necessary to make two or three incisions, with opening up of the pockets of pus in the manner indicated with the dressing forceps.

## SPECIMENS OF CHOROIDAL SARCOMA.

W. H. LUEDDE, M. D.

ST. LOUIS.

I have selected several specimens showing different types of choroidal sarcomata. The usual type is one with a broad base. One that I show here shows involvement of the ciliary body, a tumor equal in size to the entire globe. A study of most of these cases would show symptoms like those of glaucoma. The recital of the history of these cases might be interesting, loss of sight, central or portions of the field, due to the raising of the retina by the growth of the tumor, increase of tension, hardness of the globe, breaking through of the globe by the tumor with fatal issue.

I will give you the report of a case of flat sarcoma which grew around, from one ciliary body to the other, but did not reach a greater thickness than 1 mm. A number of specimens were here shown by the speaker, together with a description of the clinical history of the case.

## DISCUSSION.

Dr. Loeb.—I would like to ask whether these pictures are micro-photographs?

Dr. Gross.—On hearing this paper, the thought struck me that people when they go to an oculist are singularly remiss in giving details of their general health. They do not think that the oculist has anything to do with their health in general, but only with their eyes in particular. Perhaps we oculists come to the same notion.

Dr. Meisenbach.—How long was the time between the enucleation and the death of the patient?

Dr. Luedde.—One month.

Dr. Meisenbach.—I saw a case of sarcoma with a metastatic condition in the muscles of the eye.

A CORRESPONDENT to the London Lancet suggests that condemned murders be given the option of submitting to pathological experiment as an alternative to being executed. He says that both tuberculosis and cancer offer problems which could easily be settled in this manner, resulting very beneficial to society at large. He expresses belief that most criminals would submit to such experiment and thus choose a chance of life. While this is not a new suggestion it is not quite in accord with humanitarianism.

## THE MEDICAL FORTNIGHTLY

Issued Tenth and Twenty-Fifth of Every Month.

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## EDITORIAL

THE endeavor to meet a crying need in the matter of the prevention of tuberculosis in

the formation of tuberculosis classes, illustrated district addresses by authorities on the subject and the employ-

ment of the lay press in the campaign, is proving locally to be an entire success and free from evils which such a campaign is liable to encounter. The physicians and laymen who have the matter in charge are all men of position and men who have no need to advertise themselves, and to a very happy degree the personal element has been left out. The success of the campaign rests largely in the dignity of its conduct, the Society for the Relief and Prevention of Tuberculosis is to be congratulated on their work and methods.

Probably as a result of their success there have begun to appear unsigned articles in the daily press on medical subjects which are of vital interest to the public, and on which they are woefully misinformed. So long as these articles are authoritative and free from such errors as have so frequently characterized newspaper medicine they will meet with the approval of the profession, and will work to the advantage of the public and of the papers publishing them. One of these appeared in the Globe-Democrat of September 1st, devoted to the consideration of cancer, and there are few physicians who would not be benefited by reading it, and none of them could but approve having such information reach, and be believed by, his patients. Cancer kills 40,000 Americans each year. It is not in the same class with tuberculosis, but it is busy. What is needed is speedy diagnosis and the consent of patients to immediate removal. Some day we are going to have a cure for cancer and for

everything else, in the meantime we have to depend on surgery. The day when we are to have a definite specific remedy for every disease is not yet here, and it is no nearer than is the day when every man will live a perfectly normal life, eating, drinking, sleeping, working and playing without abuse to himself anywhere. Quite as much of our duty is to instruct him to better living, and to prevention as to curing, and we welcome preventive lectures and articles. Our hope is that the press and the public will be able to draw a clear line between the man who is legitimately trying to help to the betterment of the living world, and of those who are to follow, and the man who is either a fakir or an immature medico who will presently try to profit by imitating the methods of his betters.

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THE doctrine of cheerfulness is an old one to the medical profession and one which claims the unanimous approval of all who are combatting disease. The announcement in the daily press that a man in a neighboring

**Laughter as a Therapeutic Agent.**

village has discovered in laughter a cure for disease, strikes us as mirth-provoking in so far as the discovery goes, but worthy of serious consideration in the matter of its practical application. Good-nature, cheerfulness, laughter, what a multitude of benefits can be directly traced to them as a cause? and what an infinitely greater blessing they might be were they more generally appreciated and encouraged? Laughter may even cure disease in some of its forms. Without question the physician who is blessed with a cheery disposition and whose very entry into the sick-room brings with it encouragement, has a distinct advantage over those who can see only the serious side of existence, and by whom a joke in the presence of disease is never countenanced. An appreciation of the serious character of our calling in no wise necessitates an austere or gloomy demeanor. While advising the patient that he should always be hopeful, cheery, a duty to cultivate the same virtue is emphasized, for the gloomy physician is not giving a patient his due. Quite on an equal with hygienic measures inaugurated and therapeutics determined on may come the personal element which is sometimes called animal magnetism. The ability to be cheery and to impart cheerfulness is sometimes inborn, but it may be cultivated to a high degree of effectiveness, and it is every physician's duty to develop this characteristic to the utmost of his ability.

THE problem of food for the sick is one of the most difficult which have to be considered by physicians. The manufacturer has abundantly supplied us with starchy foods and stimulants, but has until now been somewhat ineffective in the matter of proteids, leaving us the products of the kitchen as an only resort where proteids were strongly indicated. And the kitchen fails us often. Meat foods have been furnished in liquid forms which were in their way effective, but *their way* was one of stimulation rather than genuine nourishment and with very few exceptions the strong and objectionable odor, the unpalatable flavor and the tendency to deteriorate with age are hindrances to their employment in those cases where they seem to be most needed. The new proteid food which has lately been put on the market and which seems to be free from every objection and in a high degree effective is called Meatox. This food is made from the best of fresh beef, and though entirely free of preservatives of any character it is, by some manipulation of the manufacturer, made to keep in any climate indefinitely, even though unsealed. Several analyses have been submitted to us, and they are so nearly an exact repetition of result that any one tells the story: Prof. I. V. Stanislaus, of the Pharmaceutical Faculty of the Medico-Chirurgical College of Philadelphia finds 73.54 proteids; 4.8 moisture; 4.56 sodium chloride; 9.43 insoluble matter, and 4.96 ash. It is flavored with the residue from alcoholic extract of celery which is represented in the analysis by 2.21. This means that Meatox presents approximately five times as much nourishment as is found in the best beef, and a considerably higher position as compared with such beef as is purchased by the average family. It may be administered in its original granulated form, or may be combined with broths and other food for the sick; it seems to solve the problem of nourishment in many difficult cases, and we believe it will be so generally useful as to command the enthusiastic interest of every physician who has his troubles with the food proposition.

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RUBBER STOPPERS IN GERMANY.—Owing to the fact that it is now considered that rubber containing antimony is not dangerous to health, the German government has rescinded a former measure making it unlawful to use rubber of this sort in connection with containers of foodstuffs.

THE rather general reappearance of yellow fever in Cuba has caused not a little apprehension in those sections of our country which have close commercial relations with that island; no matter how strict regulations may be enforced in our Gulf states and in the lower Mississippi Valley the region is not safe while the fever exists in Cuba. This one matter is of such importance as to entirely justify our continued intervention in Cuban affairs. Speaking to this subject the editor of the Journal of the A. M. A. expresses what is the opinion of every American who has given the situation a degree of thought, and which is becoming more and more welcome to the better class of Cubans. He says:

#### Yellow Fever in Cuba.

"The reappearance of yellow fever in Cuba is a matter of a good deal of sanitary significance, especially in the light of the testimony of Governor Magoon as to the inefficiency of the local municipal authorities in matters of sanitation. In Havana reasonable attention to health conditions could be looked for, but in the smaller cities and rural districts, as the recent outbreak at Cienfuegos demonstrates, this could not be guaranteed. There seemed little prospect, judging from past records and the governor's testimony, that the Cuban local authorities would if left to themselves carry out the conditions of the treaty securing Cuban independence, so far as sanitation is concerned. The signing of the decree by Governor Magoon by which the sanitary service is nationalized is, therefore, a matter of great import. The municipal sanitary service is, by this important measure, taken out of the hands of the local authorities all over the island and placed under the control of the Havana department of sanitation. The local authorities have been tried and found wanting; a Cuba left to itself would doubtless be a yellow fever peril for many years to come. With the closer commercial relations of the island with this country, much closer of late years than before its separation from Spain this has become a very important matter. The United States has assumed a certain degree of responsibility for Cuban good government and welfare which some of us would be glad to see relinquished. If such a policy were adopted, however, there is every reason to fear that conditions would soon become unendurable."

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Persistent suppuration in a mastoid wound in most cases, means dead bone at the bottom of the cavity.

TRI-STATE MEDICAL SOCIETY.—The meeting of this association will be held in Moberly, Mo., September 17 and 18, under the presidency of Dr. C. F. Wahrer, of Ft. Madison, Iowa. Low railroad rates, and an interesting program will undoubtedly attract a large attendance.

DR. ECCLES RETURNS AFTER ENCIRCLING THE GLOBE.—Dr. R. G. Eccles, who is known to all of our readers as one of our most interesting contributors, has lately returned to his Brooklyn home after a trip around the world of which he is telling us in occasional letters. The third of the series appears in this issue, and shows existing and historic conditions in Egypt, which are of interest not alone to the medical profession, but to travelers and students generally.

MARRIAGE OF R. L. POLK, JR.—We have recently received announcement of the marriage of R. L. Polk, Jr., secretary of the R. L. Polk Co., publishers of Polk's Medical Register, and Miss Agnes Ruppe, of Calumet, Mich. The ceremony occurred on September 2, at the Sacred Heart Church, Calumet. Polk's Register brings the Polks very close to the medical profession; we feel that they are almost within the fold, and any happy event like this is of genuine interest to us. Congratulations.

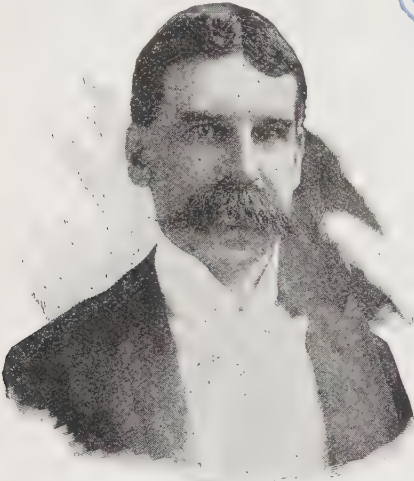
FLOATING CAMPS FOR CONSUMPTIVES—that is New York's latest plan for giving relief to its vast army of sufferers. Old ferryboats, which have passed the stage of usefulness as common carriers, will be converted into floating camps for the sick. With a trained nurse in charge, a regular visiting staff of physicians, an abundance of milk and eggs, and deck chairs and hammocks in which to sit out of doors and watching the passing craft, fifty men and women are keeping cool and trying to get back their health and strength.

MISSOURI DAY AT JAMESTOWN—Missouri day is to be observed at the Jamestown Exposition on September 21st. Preparations are being made to have it one of the most important special days of the Exposition. Governor Folk and his staff and numerous State celebrities are to be in attendance, while a number of excursions are being arranged, which insure a goodly representation from the State. The Big Four route is offering especially attractive rates at this time, and those who have not yet visited the Exposition will find it at its best during the coming months. It is expected that September and October will be the banner months of the enterprise.

## SOCIETY PROCEEDINGS

### MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The thirty-third annual meeting of the Mississippi Valley Medical Association will be held at Columbus, O., October 8, 9 and 10, under the presidency of Dr. Horace Grant, of Louisville, Ky. The orator in Medicine will be Dr. Geo. F. Butler, of Chicago, Ill., and the orator in Surgery Dr. Frank D. Smythe, of Memphis, Tenn.



DR. HORACE GRANT,  
Louisville, Ky.

President Mississippi Valley Medical Association.

The Association is doing commendable work in furthering the cause of medical research, by offering a prize of \$100 for the best original essay upon some medical or surgical topic. The Committee of the Association to decide upon this contest is composed of Drs. Hugh T. Patrick of Chicago, C. H. Hughes of St. Louis, and A. H. Cordier of Kansas City.

Preparations are being made on an extensive scale for the entertainment of members and guests by the profession of Columbus, with the following Committee of Arrangements: Chairman, F. F. Lawrence; secretary, Chas. J. Shepard; treasurer, William E. Davis; Committee on Ways and Means, J. W. Clemmer; Entertainment, J. U. Barnhill; Transportation, W. J. Means; Exhibits, W. J. Means; Reception, J. H. J. Upham; Press and Information, Frank Winders; Halls and Meetings, Earl Gilliam; Badges, J. E. Brown; Registration, Wells Teachnor; Ladies, Mrs. D. W. Hamilton.

The following is a list of papers which have been offered up to August 15th, and

there are many promises for papers from other well-known men in the valley:

I. A. Abt, Chicago, Ill., Urinary Infections in Children.

Chas. J. Aldrich, Cleveland, O., The Psychoses of Pneumonia.

M. A. Austin, Anderson, Ind., The Kidney Surgically Considered.

Carl Beck, Chicago, Ill., Gastric Ulcer.

M. R. Barker, Chicago, Ill., When Should Gastric Ulcer be Treated Surgically?

A. D. Barr, Jersey City N. J., The Relation of Metabolic Ferments to Metabolism; Especially in Diabetes Mellitus and Tuberculosis.

Chas. E. Barnett, Ft. Wayne, Ind., Vesico-Urethro-Vaginal Fistula.

J. E. Cannaday, Hansford, W. Va., Treatment of Pus Tubes.

T. D. Crothers, Hartford, Conn., the Relation of the Doctor to the Alcoholic Problem.

Geo. B. Evans, Dayton, O., Local Anesthesia versus General in Ano-Rectal Surgery.

Geo. W. Finley, Brazil, Ind., Gastro-Enteritis.

Frank W. Gavin, Canton, O., Medical Inspection of Public Schools.

A. E. Halstead, Chicago, Cancer of the Thyroid Gland.



DR. GEO. F. BUTLER  
Chicago  
Orator on Medicine

M. L. Heidingsfeld, Cincinnati, O., Some Clinical and Differential Features of Syphilis, as Demonstrated from Lantern Slides and Wax Models.

Earl Harlan, Cincinnati, O., The Frequent Inter-dependence of Dislocated Kidney,

Gall-Bladder Trouble, and Appendicitis.

Marc Ray Hughes, St. Louis, Anomalies of the Stigmata of Degeneracy.

G. Frank Lydston, Chicago, Plastic Work on the Urethra—A New Operation.

Harold A. Miller, Pittsburg, Pa., Pregnancy Complicated by Pulmonary Tuberculosis.

J. B. Murphy, Chicago, Pleuritis and Its Surgical Aspects.

C. M. Nicholson, St. Louis, Primary Abdominal Pregnancy.

Curran Pope, Louisville, Ky., The Value of Physio-Therapeutic Methods in Chronic Diseases.

D. C. Peyton, Jeffersonville, Ind., Tuberculosis of the Bones of the Feet, with its Treatment.

Chas. A. L. Reed, Cincinnati, O., Important but Frequently Disregarded Clinical Phases of Movable Kidney.

Merrill B. Ricketts, Cincinnati, O., Treatment of Stump in Appendectomy.

H. H. Roberts, Lexington, Ky., Gastric Ulcer.

Albert E. Sterne, Indianapolis, Ind., Radical and Palliative Operations for Cerebral Hemorrhage.

Mark D. Stevenson, Akron, O., Purulent Conjunctivitis in Infants and Adults.

Geo. P. Sprague, Lexington, Ky., Drug Addictions.

Geo. B. Twitchell, Cincinnati, O., Internal Rotation and Lacerations of the Perineum.

Frank B. Walker, Detroit, Mich., Treatment of Inguinal Hernia in Children.

Edwin Walker, Evansville, Ind., What We Can Not Do with Purgatives.

A. U. Williams, Hot Springs, Ark., Some Cases of Re-Infection with Syphilis.

C. E. Briggs, Cleveland, O., Volvulus of the Entire Mesentery of the Small Intestine, with Report of a Case.

Sanger Brown, Chicago, Medicolegal Notes.

J. Rawson Pennington, Chicago, The Sigmoidal Factor in Pelvic Diseases.

Bernard Asman, Louisville, Ky., Cancer of the Rectum.

Robt. C. M. Lewis, Marion, O., Neuroses of the Bladder.

Hugh F. Lorimer, Chillicothe, O., The Early Diagnosis of Gall-Stones.

## SURGICAL SUGGESTIONS

From the *American Journal of Surgery*

Nurses should be instructed not to massage the limbs of patients who complain of pain after operation or confinement, without the order of the attending surgeon. If phlebitis and thrombosis are present, the manipulation may loosen a clot and cause instant death.

The injection into a ganglion of the wrist of phenol-camphor, two to ten minims, according to the size, and repeated once or twice if necessary, will cause its complete disappearance in most cases. No attempt at preliminary aspiration need be made.

Small stab wounds (one-half cm. long) in the course of a developing cellulitis of an arm or leg, followed by the application of a Martin bandage above for five to eight hours a day (Bier treatment), will relieve the patient more quickly than large incisions with drainage.

An opaque growth on the eyeball in a child is likely to be a dermoid growth—that is a growth of skin epithelium on the conjunctiva.

A sty is often most easily treated by the removal of the hair in the infected follicle and the subsequent application of iced boracic acid compresses.

Syphilitic interstitial orchitis resembles closely in appearance new growth of the testicle. Unless the diagnosis of neoplasm is beyond all doubt, an active course of specific treatment should be tried before removing the organs.

Irrigation of the ear with a warm boric acid solution (108 deg. F.), is an excellent procedure if there is a discharge of pus. But irrigation of the ear just after a paracentesis of the drum or where there is only a serous discharge, merely predisposes the mucous membrane and the mastoid to greater infection.

The pain of a severe burn may be much relieved by covering the part with flat pieces of gauze soaked in liquor Burowii and protected by rubber tissue, or by the application of a 10 per cent ichthyol ointment on flat pieces of gauze.

**FIVE-YEAR COURSE AT MCGILL.**—According to the recently issued catalogue of McGill University, Montreal, the course of study leading up to the degrees of M.D. and C.M. will, beginning with the coming session extend over five years instead of four, as heretofore.

### Epilepsy.—

℞ Ammon. br .....  
Sodii br .....  
Potassii br ..... aa ʒiiss  
Aqua q.s.ad ..... ʒviij  
M. Sig.: Tablespoonful to a dose.

## NEWS OF A FORTNIGHT

**THE MEDICAL CONSENSUS.**—The State Board Journal is hereafter to be known as the Medical Consensus. The new name strikes us as an improvement and one which will aid as a success maker.

**OREGON AND CALIFORNIA** have each appropriated \$100,000 for the Alaska-Yukon-Pacific Exposition, with the assurance that additional amounts will be authorized at their next Legislatures.

**PROF. MARMOREK**, the inventor of the polyvalent antistreptococcus serum which bears his name, was one of the three leaders in the Zionist Congress held last week at the Hague. Another of the triumvirate was Dr. Max Nordau.

**VIENNA** practitioners are to be fined \$100 for prescribing for patients in the country or in the city over the 'phone. This is a step in the right direction, first because no prescription should be given unless the patient has been carefully examined.

**PLAGUE IN INDIA.**—Returns of death by plague in India show an appalling total of 1,060,067 for the six months ended June 10. The monthly total is at present decreasing, however, the death roll for June being 69,465. The total for the six months of 1907 already surpasses that for the entire twelve months of 1904, when 1,012,000 persons died. This total is the highest ever recorded previously to the present year.

A DOCTOR in Massachusetts is said to have succeeded in weighing the soul. That is, by weighing the body just before and just after death he finds a loss in weight of several ounces that he cannot account for in any way except on the hypothesis of the escape of an invisible ponderable substance. It would take a pretty finely balanced scale to weigh some people's souls. The analytical balance sensitive to one-tenth of a milligramme wouldn't begin to do.

**FREE DISTRIBUTION OF ANTITOXIN.**—The Secretary of the Illinois State Board of Health recently announced that the law providing for the free distribution of diphtheria antitoxin by the board went into effect July 1, but that on account of the delay in the details of purchase and manufacture the supplies will not be ready for distribution before October 1. In the mean time physicians can secure antitoxin from any of the agents of the board without cost to the poor, on obtaining an order from the supervisor or overseer, as required under the Act of 1905.

The physicians of Logan County, O., have established a scale of charges, provided for a black-list for dead beats and decided that preachers must pay regular rates for medical services.

A SUMMER student of Green Hall, one of the dormitories for women at the University of Chicago, was removed to the Isolation Hospital, July 10, on account of smallpox, and the sixty students in that dormitory were vaccinated by officials of the health department. Vaccination proved effective in hindering the general outbreak of the disease which was feared.

THE Sixth International Dermatological Congress will be held at New York, beginning September 9, 1907, and continuing for one week, under the presidency of Dr. James C. White, of Boston. Dr. Grover W. Wende, of Buffalo, is a member of the organization committee, and Dr. John A. Fordyce, 80 West 40th street, New York, is the secretary-general.

NEW YORK has a population of 3,153,213, and on August 19, 1906, registered 22,165 living cases of tuberculosis. In that year the number of deaths from the disease was 10,194 and the total expense to the city for tuberculosis cases in 1906 was \$1,269,400. The list of expenses included nurses, milk, eggs, medicine and sputum cups; clinic maintenance, dispensary provisions, reception hospital and expenses of hospital provision.

**HEALER IN TROUBLE.**—John R. Laxton a "botanic" healer of Lynn, Mass., was summoned before the police court August 23 charged with practicing medicine without a license. This is one of the first shots fired in the battle which Lynn physicians have started against a great number of persons in that city alleged to be practicing medicine without the license required by the state. In this case the defendant pleaded not guilty and the case was continued until September 6.

SIR JOHN McDONALD has compiled statistics of the motives impelling men to commit the crime of murder. His compilation extends over a period of nineteen years, during which time five hundred fifty-two persons were awaiting trial for homicide. Most of the murdered were women, and of the crimes committed by women, children were in most cases the victims. Jealousy and intrigue were provocative causes in ninety-two cases, while drunkenness was responsible in ninety, these being the chief factors entering into the crime. Other causes were rage, revenge, poverty, and robbery.

DR. GEORGE A. ZELLAR, of Peoria, Ill., announces that he is seriously considering making the race for Lieutenant-Governor on the Republican ticket in 1908.

ADMIT AMERICAN MEATS.—The French government has notified Ambassador White that American meat may be brought into France upon the American certificate, and that microscopic examination will not be insisted upon. This ruling, however, is only temporary. No official decision has yet been communicated to the American Embassy in the matter of continuing the admission of Porto Rican coffee at the minimum import duty.

DR. HERBERT L. BURRELL, president-elect of the American Medical Association, is now preparing the manuscript of a work on surgery, of considerable magnitude and importance, which the Philadelphia publishers, P. Blakiston's Son & Co., will bring out. This is another indication of Dr. Burrell's tireless labor in educational fields. The book is to be complete in one royal octavo volume, well illustrated, and, needless to add, well and authoritatively written.

WHAT ELSE COULD YOU EXPECT?—Senator Foraker, of Ohio, who with his good wife, has done much to make osteopathy what it is has again been heard from. It appears that the Indianapolis Star addressed a number of queries to prominent men in both houses of Congress requesting a statement on the suggestion of creating a national health office and the creation of a new Cabinet office. This was the noncommittal reply of Senator Foraker: "The subject is one that has been brought to my attention by the medical associations of Ohio, and I intend as soon as I can find time to investigate it. Until I have opportunity to do so I prefer for obvious reasons not to express any opinion on the merits of the proposition."

REPORTABLE CONTAGIOUS DISEASES.—Under the regulation of the Philadelphia Board of Health, the following diseases are made reportable: Cholera, yellow fever, malarial fever, typhoid fever (enteric fever), typhus fever, scarlet fever, relapsing fever, smallpox (variola or varioloid), chicken pox (varicella), diphtheria, cerebro-spinal meningitis (spotted fever), measles, whooping cough, tuberculosis (in any of its manifestations), pneumonia, erysipelas, puerperal fever, plague, trachoma, leprosy, tetanus, glanders, hydrophobia (rabies) anthrax. All practitioners of veterinary medicine are requested to report the existence of glanders (Farcy), tuberculosis, anthrax, tetanus and rabies in animals or man.

DR. MITCHELL'S NEW STORY.—The September Century will have complete novelette by Dr. S. Weir Mitchell, prince of American story-writers. It is announced as one of Dr. Mitchell's decidedly characteristic pieces of work, holding the reader's attention closely to a most unexpected ending.

ITALIAN ANTIMALARIA CRUSADE.—The malarial districts in Italy are placed in charge of prominent physicians who, with their assistants, direct the campaign against malaria. Baccelli is in charge of the Rome district, Golgi of the provinces of Cremona, Milan, Novara, Pavia and Padua, Rummo of the Naples district, De Renzi of the Caserta district, Gabbi of Messina, Zagari of the Sassari district and Cardarelli of the Campobasso district. All but four of the twelve physicians entrusted with the task are members of the national legislature. The present appointments are merely the continuation of the work of each during the last years.

FAKE WRITERS BLACKLISTED.—At its meeting last year the German Association of Medical Editors decided to prepare a list of authors, who are accustomed to furnish, for pay, articles recommending new remedies and the preparations of chemical manufacturers. Their articles are neither to be published nor abstracted in the journals of the members of the association. After the most thorough sifting of the evidence, which was made possible by the co-operation of the large chemical manufacturers, a list of this character has now been completed and distributed. The association hopes, through common effort, to eliminate a canker from which the German medical journals and through them, the physicians, have suffered in late years.

ABSINTHE FORBIDDEN.—The sale of absinthe has been forbidden in the Swiss canton of Vaud; and this is good temperance reform. No doubt the other cantons will fall in line. This drug induces not only the ordinary alcoholic craving, but also a habit peculiarly disastrous to the brain. The Swiss, however, show themselves a canny folk in manufacturing the stuff for those who don't know better than to use it, but forbidding their own citizens to touch it. Very much the same game as this has been played by the highly moral English, who reprehend the use of opium in the tight little island, while making great revenues by its sale in China, among whose people the English originally by force of arms introduced the drug.—The Ill. Med. Bull.



## THE MEDICAL FORTNIGHTLY

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Contributions and books for review should be addressed to the Managing Editor, 319 and 320 Century Building, St. Louis, Mo.

### MEDICAL MISCELLANY

**REGULATING PRACTICE.**—The International Journal of Therapy very rationally holds that the whole problem of regulating medical practice in this country depends on five points: 1, adequate preparatory training of medical students (the degree of A. B. should be the minimum); 2, control of medical colleges through a national Board of Health; 3, a uniform standard of State examinations under national control; 4, absolute freedom of the practitioner in the choice of therapeutic agents; 5, reciprocity in medical licensure between the States.

**BREAD JELLY.**—A very useful food for young children, and forms a good basis for admixture with other nutritive diets. Take a quantity of the soft part of a loaf, break it up into small pieces, and pour boiling water over it until it is quite covered, then allow it to stand in soak for some hours. Pour this water off, and add another supply, and then

place it in an enamelled saucepan and allow it to simmer until it is smooth. Press out the water, and the masses remaining will cool into a jelly. Mix a little with sweetened milk and water. It should not be eaten cold.

**SUPRARENAL LESIONS AND NEPHRITIS.**—The physiologic interpretations of the hyperplastic changes in the suprarenal glands is still a matter of conjecture. The importance of the suprarenal secretion in all disorders accompanied by high arterial tension and the finding of constant alterations in the suprarenals in cases of supertensive nephritis. Beaujard thinks it is not premature to regard suprarenal cortical hyperplasia as a constitutional part of the anatomic picture of interstitial nephritis in company with cardiac hypertrophy. Experiments lead to the supposition that hyperplasia of the adrenals is the result of a chronic intoxication. Necessary to distinguish carefully between the cortical and medullary portions of this gland. It seems justifiable to regard the medullary increase as due to a necessity on the part of the organism for increased vascular tension, and if so suprarenal changes would be compensatory reactions rather than exciting agents.—N. Y. Med. Jour.

**WHAT DID SHE MEAN?**—Mrs. Armitage had a negro servant who continually prated of a certain Mrs. Reed for whom she formerly worked. Weary of hearing Mrs. Reed quoted so often, the mistress asked one day:

"Well, Samantha, what kind of work did you do at Mrs. Reed's, any way?"

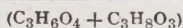
"Well, honey, I cooked foh hah, I did, an' I cleaned for hah, an' I swep' for hah, an' I washed hah pussonel appea'ance."—July Lippincott's.

### CALCIUM SULPHIDE DEPILATORY.—

|                         |       |
|-------------------------|-------|
| Calcium sulphide .....  | 3iv   |
| Sugar .....             | 3ij   |
| Water .....             | 3ij   |
| Starch powder .....     | 3ij   |
| Oil of lemon .....      | m xxx |
| Oil of peppermint ..... | m x   |

The resulting mass must be filled at once into an air-tight jar, as the calcium sulphide is decomposed by the atmosphere. For use, some of the mass is moistened with water, painted on the skin, and after thirty or forty minutes washed off with water.—Pharm. Era.

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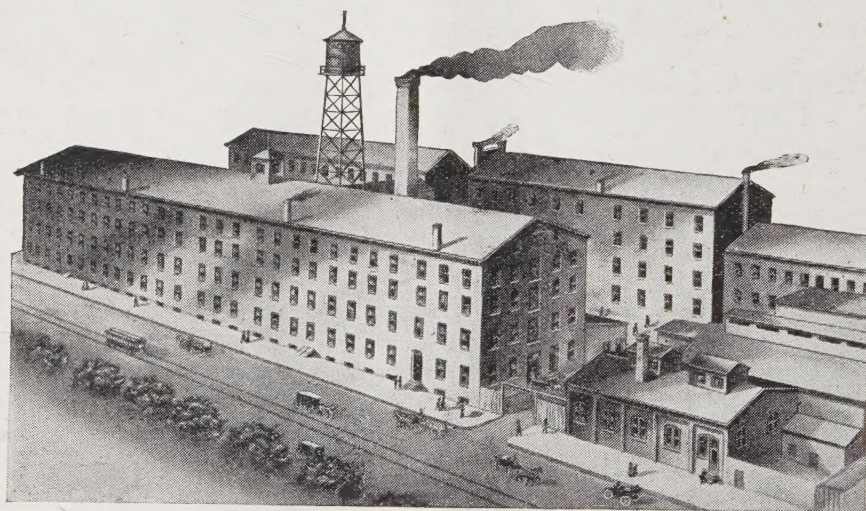
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**For Sale.**—Western X-ray coil and appliances. Complete outfit for X-ray work, in perfect condition. Will make a low price to cash purchaser. Address the Editor of the Fortnightly.

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**Additional Pharmaceutical Laboratories of H. K. Mulford Company.**—To meet the growing demands of their business, the H. K. Mulford Company have acquired the above property at Eleventh and Catherine streets, Philadelphia. These buildings will be used for the manufacture of standardized fluids, solid and powdered extracts,



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CATHARINE AND ELEVENTH STREETS, PHILADELPHIA

tinctures and special synthetic products and provide for the storage, milling and grinding of crude drugs. The Research Laboratories on Thirteenth street and the Biological and Physiological Laboratories at Glenolden for the production of anti-toxins, vaccines and for the testing of drugs have been materially increased.

**Antiphlogistine Versus Opium.**—Inflamed states of the various organs of the body frequently give rise to pain of such urgent character as to demand active steps looking to its relief. Upon seeing the patient for the first time (he has called his physician because his suffering has become intolerable), the medical attendant is met with a peremptory demand for relief from the suffering. With a willingness, which frequently overrides their better judgment, some physicians resort to the hypodermic needle indiscriminately, and in too many cases, a greater evil has followed the lesser one. The free habit of using morphine or other forms of opium, is not a judicious practice, and for several reasons. The exact seat of an inflammation, for instance, might become difficult to locate, and thus a clear diagnosis be interfered with. But the greater objection to the use of opium, is the possibility of adding a recruit to the ever growing army of habitués. Every time there occurs to a doctor the apparent need for opium, he should deliberate well before resort is had to the needle. If after careful consideration, his best judgment advises the use of opium, it should be given in some form by mouth. If the needle is used, the patient knows at once what he is getting, but he is not so likely to acquire this information if it be given otherwise. For relieving the pain of the inflammations, antiphlogistine will easily take the place of opium. The relief following may not be so prompt and so complete, but the edge of the suffering is taken off within a short time, and soon the patient is in a comfortable condition and has escaped the possibility of becoming addicted to a drug. There is not the likelihood that a patient, relieved from pain by it, will begin eating or using antiphlogistine in any other way—which likelihood is the greatest disadvantage of opium. In the future let your morphine become stale and keep your antiphlogistine fresh—use it in inflammation—The Medical Era.